Toward a Socially Just Transition to Low Carbon Development: The Case of Indonesia

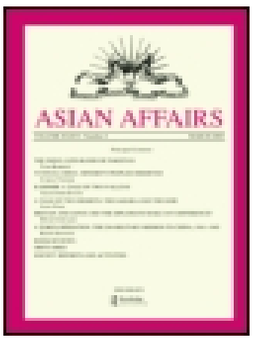
Article *in* Asian Affairs · November 2020

DOI: 10.1080/03068374.2020.1835000

2 authors, including:

Abidah B Setyowati
World Bank
26 PUBLICATIONS **257** CITATIONS

SEE PROFILE



Asian Affairs

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/raaf20

TOWARD A SOCIALLY JUST TRANSITION TO LOW CARBON DEVELOPMENT: THE CASE OF INDONESIA

Lorraine Elliott & Abidah B. Setyowati

To cite this article: Lorraine Elliott & Abidah B. Setyowati (2020): TOWARD A SOCIALLY JUST TRANSITION TO LOW CARBON DEVELOPMENT: THE CASE OF INDONESIA, Asian Affairs, DOI: 10.1080/03068374.2020.1835000

To link to this article: https://doi.org/10.1080/03068374.2020.1835000

Published online: 18 Nov 2020.

Asian Affairs, 2020
https://doi.org/10.1080/03068374.2020.1835000

THE ENVIRONMENT AND SOCIAL JUSTICE IN ASIA

TOWARD A SOCIALLY JUST TRANSITION TO LOW CARBON DEVELOPMENT: THE CASE OF INDONESIA

LORRAINE ELLIOTT AND ABIDAH B. SETYOWATI

Lorraine Elliott is Professor Emerita in International Relations at the Australian National University. She is a member of the Scientific Steering Committee of the Earth System Governance research network. She researches and publishes on human security, global and Asia Pacific environmental politics and ethics, green economy, and transnational environmental crime. Email: lorraine.elliott@anu.edu.au

Abidah B. Setyowati is Research Fellow at the School of Regulation and Global Governance (RegNet) at the Australian National University. A human-environment geographer by training, her research focuses on natural resources and climate governance, critical climate change studies, energy governance, climate finance and gender in Southeast Asia, particularly in Indonesia. Email: abidah.setyowati@anu.edu.au

In 2019, the Indonesian government released its post-Paris Agreement report Low Carbon Development: a paradigm shift towards a green economy in Indonesia, in which it set out an economic rationale for a move to low carbon growth. The core of the paradigm shift referenced in the report's title was that growth not only had to be decoupled from high carbon inputs but that in both practice and outcomes it had to be sustainable and inclusive. Yet the report does little to define social justice, equity practices, or inclusive outcomes in a green economy context. In this article, we foreground distributive, procedural and recognition aspects of social justice that are central to Indonesia's climate mitigation efforts and transition to a green, low carbon economy. We focus on two sectors that are key to this transition – forest and land-use, and energy. Our analysis shows that existing forms of injustice can exacerbate challenges for decarbonisation action and that low carbon transitions initiatives have been unable to overcome various forms of injustice and have, in some cases, created new injustices.

Keywords: Indonesia, low carbon, decarbonisation, climate change, social justice, environment, growth, economy, environmental justice, forest, land use

Introduction

In 2019 the Indonesian government released its post-Paris Agreement report, *Low Carbon Development: a paradigm shift towards a green economy in Indonesia*, in which it set out an economic rationale and blueprint for a move to low carbon growth.[1] This process of "disrupting carbon lock-in" and "removing fossil fuels from … energy and economic systems"[2] – often referred to as decarbonisation – is specifically linked to the kinds of systemic changes required to meet the complex challenges of global climate change. It is a central component of Indonesia's strategy to meet its nationally determined contributions (NDC) under the Paris Agreement – an unconditional greenhouse gas (GHG) emissions reduction of 29 per cent against business as usual practices by 2030 and, with international support for finance, technology transfer and development and capacity building, up to a 41 per cent reduction.[3] The *Low Carbon Development* report, prepared through a collaborative process led by the Department of National Planning (BAPPENAS) and involving key line ministries, official development partners, and several development and environment research institutes and NGOs, was hailed as a significant step for a G20 developing-country economy. Indonesia's average growth rate of 5.3 per cent per annum between 2000 and 2018 had relied on high-carbon inputs, and high-carbon economies generate extensive environmental costs. In Indonesia, those environmental costs included deforestation, air and water pollution, loss of biodiversity and habitat, and land degradation. The annual monetary costs of associated climate change impacts on agriculture, human health and sea-level rise are estimated to reach 132 trillion IDR [rupiah] by 2050, or approximately 1.4 per cent of Indonesia's GDP.[4]

The core of the green economy paradigm shift referenced in the report's title was that growth not only had to be decoupled from environmentally damaging high-carbon inputs but that in both practice and outcomes it had to be sustainable and inclusive. Such an aspiration is arguably the embodiment of the country's foundational principles of *Pancasila*, particularly the fifth principle of "social justice for all".[5] In line with the principles of green economy models, the Government of Indonesia anticipated an inclusive pathway to low carbon growth that would be environmentally sustainable, resource efficient and socially equitable in its practices and that would deliver sustainability, efficiency and equity in its outcomes.[6] Yet the report does little to define its understanding of social equity in a green economy context. More specifically, it makes only one mention of the need for transitions to be just, a principle that highlights "justice

and equity concerns in the context of green economy"[7] and that has become deeply embedded in global discourse on the politics and practices of transformation to a low carbon world. In calling for low carbon development policies to be "implemented in a way that is compatible with a just transition", the report emphasises support for "people and communities … as they re-deploy and build new capabilities to participate in and benefit from the new low carbon economy".[8] While this is an important dimension of a just transition, it is not sufficient in and of itself, and it does little to anticipate the kind of paradigm shift associated with transformative models of green economy.[9]

These justice concerns are also often excluded – sometimes deliberately so – from a range of policy reports on decarbonisation in Indonesia. The international Deep Decarbonisation Pathways Project, for example, explains in its report on Indonesia that because its focus is on how *far* countries can decarbonise "there is no explicit discussion of … resolving the equity dimension" even as it recognises that "further consideration of enabling mechanisms [for equity outcomes] is required".[10] In their analysis of the "prerequisites for developing an effective LCDS [low carbon development strategy]", which takes Indonesia as one of two case studies (the other is Ghana), van Tilburg *et al*. make no mention of justice or equity considerations beyond some brief mentions of just transitions in agreements under the United Nations Framework Convention on Climate Change (UNFCCC) and the value of stakeholder participation.[11] Indonesia is not alone in this regard. In their study on transitions to low-carbon economies in emerging markets, Worrall *et al*. observe that "where they exist, policymaking, planning and social dialogue processes have focussed on economic development and power sector expansion rather than on the social justice aspects of the decarbonisation process".[12]

In contrast, our analysis here is motivated by the proposition that "questions of justice must be at the heart of any discussion on transition".[13] Making justice principles more explicit, we argue, can help to inform the kinds of design policies and implementation practices that can promote more equitable and inclusive climate mitigation and transitions to a low carbon green economy in Indonesia as elsewhere. As Piggot *et al*. point out "[by] taking justice considerations into account, transition policies are [also] more likely to limit social and political resistance, win a broad consensus, and achieve effective implementation".[14] A focus on the local dimensions of social justice takes on further importance in a post-Paris climate change context that is increasingly characterised by

and relies on bottom-up "subnational climate experiments" to "facilitate transformative pathways to decarbonisation".[15] As we explore below, these kinds of decentralised, locally-directed initiatives for disrupting carbon lock-in have become a feature of the Indonesian approach to low carbon growth.

We draw on three dimensions of environmental justice – procedural, distributive and recognition. This focus on justice principles in low-carbon, green economy transitions can serve as a conceptual tool, an "important analytical tool" and a useful "decision-making tool".[16] In this regard, and as part of a larger study, it enables us to think about (or problematise) how the policy challenges of just transitions to a low-carbon economy are framed. It also enables us to re-think the techniques of governance – the practices of decision-making at multiple scales – and whether rules, regulations, policies and mechanisms meet the criteria of being socially "just" in their form, implementation and, perhaps most important, their outcomes. We begin with a short introduction to the concept of just transitions and the key principles of social justice that shape our analysis. The second section surveys the broader policy and social justice context of low carbon development strategies in Indonesia. In the final section, we examine these social justice questions in two sectors that are marked by high levels of greenhouse emissions and environmental challenge and that are therefore central to Indonesia's transition to a low carbon economy – forest and land-use, and energy.

Socially just transitions

The idea of just transitions has its roots in US labour movement concerns in the 1970s about the consequences for job security of stricter environmental regulation in pollution intensive industries. The concept was given global recognition in the International Labour Organization's policy framework for a just transition, adopted at the 102nd International Labour Conference in 2013, and in the 2015 ILO Just Transition Guidelines.[17] In its focus on ensuring that no-one is left behind in climate change mitigation and the transition to low carbon economies, the Guidelines are based on the principles of "decent work for all, social inclusion and the eradication of poverty".[18] These themes are also prominent in the commitment to "a just transition of the workforce and the creation of decent work and quality jobs" embedded in the preamble to the 2015 UNFCCC Paris Agreement, in the broader themes of the

2012 Outcome Document of the UN Conference on Sustainable Development (Rio+20) in which states agree to work towards a sustainable future that is "just, equitable and inclusive",[19] and in the Solidarity and Just Transition Silesia Declaration adopted by Heads of State at the UNFCCC 24th Conference of Parties (CoP) in 2018.

According to the ILO, well managed transitions to green economies can help to drive poverty eradication and achieve social justice outcomes.[20] As Sachs and Someshwar suggest, this requires that strategies for transition to low carbon, green economies include social policies that "enhanc[e] inclusion … [and] address … the needs of disadvantaged and vulnerable groups".[21] Yet this focus on outcomes, while important, tells us little about what principles of justice should guide those transition policies in the first place. The literature on decarbonisation has sought to take on this challenge, first by demonstrating that "issues of equity and justice will be intrinsic to whatever … [policy] trajectory is pursued"[22] and, second, by unpacking those principles of justice such that they can be translated into outcomes that are both effective and fair. This latter task has most often focused on the distributional (costs and benefits) and procedural (due process) dimensions of climate mitigation in a green economy context.[23] Drawing on the work of environmental justice scholars such as Schlosberg and Sovacool, we also include recognition principles to better understand the social justice implications and consequences of green economy, low carbon transitions in Indonesia.[24] Recognition justice acknowledges distinct and diverse but often marginalised identities, histories and experiences and seeks to eliminate forms of socio-cultural domination of some groups over others. Thinking about justice in this way also helps to expose situations in which "past injustices [are] left unaddressed and existing injustices may be prolonged".[25] These three principles of social justice are closely linked, with the result that failure to adhere to one could hamper the attainment of the others. As Schlosberg argues "inequitable distribution, a lack of recognition, and limited participation all work to produce [environmental] injustice".[26] To put it another way, the kind of justice that is required in the transition to a low-carbon economy is threefold: "equity in the distribution of environmental risk, recognition of the diversity of the participants and experiences in affected communities, and participation in the political processes which create and manage … policy".[27]

Policy background

The early stages of Indonesia's move to a green economy paradigm can be dated to 2004 when the government of President Susilo Bambang Yudhoyono (SBY) introduced a four-pronged "pro-growth, pro-job, pro-poor and pro-environment" framework to guide Indonesia's national planning agenda.[28] Public policy conversations on responses to climate change, a reduction in carbon emissions, and a managed transition to low carbon development were boosted in 2007 when the government hosted the 13th UNFCCC CoP in Bali and adopted its first National Action Plan for Climate Change, though neither "green economy" nor "low carbon development" are specifically referenced in that Plan. In 2008, the government established a National Council on Climate Change (since merged into the new Ministry of Environment and Forestry) and the Ministry of Finance released an associated series of technical studies on low carbon development options. In Presidential Regulation 61/2011, the government published a detailed National Action Plan to reduce greenhouse emissions (RAN-GRK, *Rencana Aksi Nasional Pengurangan Emisi Rumah Kaca*). The government's 2015 National Medium-Term Development Plan (2015–2019) specified green economy based on principles of inclusive and sustainable growth as the foundation for Indonesia's future development. Over this period from 2004, the government also adopted a number of other presidential and ministerial regulations, instructions and decrees that together constitute the (potential) core of a low carbon policy complex, including those addressing Reducing Emissions from Deforestation and Forest Degradation (REDD+), energy efficiency and conservation, geothermal energy, and biofuel development.

These early discussions were driven mainly by questions about the kinds of macro-economic strategies and fiscal policy instruments that would support climate change mitigation and a low carbon economy without compromising the country's development opportunities. They took place against a background of political decentralisation in Indonesia, by which a range of overlapping environment, resource and development responsibilities were delegated to competing provincial and district (sub-provincial) levels of government. These political reform strategies were accompanied by a growing emphasis on the importance of local and community initiatives in meeting environment, conservation and development challenges and strengthening anti-poverty efforts in Indonesia. Ensuring that low carbon transitions in Indonesia are both pro-growth and pro-poor is a challenge. Under green growth models, such transitions

require policy interventions to ensure progressive distributional change in the calculus of harms and benefits. This is particularly confounding in the Indonesian context: official government figures reveal that while the poverty rate in Indonesia declined (from 19.4 per cent in 2000 to 11.3 per cent by 2013),[29] income *inequality* in Indonesia actually increased in the first decade of the 21st century.[30]

As we note above, social justice considerations have become more prominent in the global debates about green economy and decarbonisation, including through the concept of "just transitions" and efforts to ensure that "the uptake of lower carbon [strategies] is sensitive to the distribution of social harm and benefit".[31] The Indonesian government's formal commitments to climate mitigation and emissions reductions and its policies on low carbon growth have paid some attention to social protection policies and inclusive practices. The country's first NDC submitted to the UNFCCC Secretariat in 2016 touches on the importance of the active participation of "local communities and the most vulnerable groups, especially adat [indigenous] communities and women"[32] and the need to enhance social and livelihood resilience and address socio-economic disparity.[33] In its call for "high pro-poor economic growth with low carbon emissions",[34] the government has acknowledged that "efforts to address climate change [should not come] at the expense of the poor" and that low carbon transitions should pay attention to social considerations and the need to improve quality of life.[35] For the most part, however, pro-poor strategies in Indonesia's low carbon models have been modelled in terms of economic, environmental and social co-benefits and not in terms of social justice. The government's strategic approach to a low carbon future outlined in the first NDC makes no mention of just transitions or equity as guiding principles.[36] The 2017 progress report on NDC implementation, which is explicit that climate change is both an environmental and national economy issue, summarises diverse strategies and mechanisms that have been adopted across multiple sectors in pursuit of "low carbon development and communities".[37] It says almost nothing about progress on social justice outcomes or transitions, beyond some occasional mention of involving all stakeholders in mitigation action,[38] increasing community participation in preventing forest and land fires,[39] and strengthening farmer deliberation at the local level with respect to mitigation in the agricultural sector.[40]

The Indonesian low carbon experience

The various low carbon development studies and reports described earlier in this article have paid special attention to the importance of taking action in the energy and forest sectors in Indonesia, the latter including the management of land-use change.[41] Siagian *et al*. report that "almost one half of Indonesia's emissions come from land use, land use change and forestry", with energy-related activities the second largest contributor of GHG emissions'[42] though government documents have also identified energy as the highest emission contribution sector.[43] The government intends to achieve 87 per cent of its pledged emissions reductions in just these two sectors.[44] Indonesia's REDD+ agency, now part of the Ministry of Environment and Forestry, was committed to "putting forests at the heart of a green economy".[45] The government also plans to reduce GHG emissions from the energy sector by increasing the renewable energy mix to at least 23 per cent of total energy generation by 2025.[46] Both sectors are therefore crucial to the success of the country's decarbonisation or low carbon development strategies.[47] In the discussion below, we explore key distributional, procedural and recognition justice aspects of select initiatives in these two sectors. In doing so, we expose existing and possible new forms of injustice, identify areas of policy failure in justice terms, and give some thought to justice outcomes in the transition to low carbon economies.

Forest and land use sector: slow progress on the ground

GHG emissions from the forest and land use sector in Indonesia have helped to rank the country as one of the world highest emitters in gross terms.[48] The government's strategies for reducing these emissions include a renewed commitment to the Forest Moratorium policy and the suspension of new concessions in primary natural forest and peatland areas, improving the restoration of degraded forest and forest-related ecosystems, and supporting better management of palm oil concessions.[49] Under the low carbon development initiative (LDCI), forest protection and land restoration policies are expected to "embrace mechanisms for land rights, governance and improving the living conditions and access to opportunities of poor families".[50] In pursuit of climate mitigation strategies that can support transitions to low carbon economies, Indonesia has championed nature-based solutions (NBS) such as REDD+ and Payment for Ecosystem Services (PES). The country has become something of a vanguard in this area, with a

proliferation of REDD+ and PES initiatives across the archipelago. The government has also recently received REDD+ results based performance payments of USD56 million under the terms of a bilateral agreement with Norway[51] and USD103.8 million from the Green Climate Fund.[52] Nature-based solutions of this kind seek to manage ecosystems and ecosystem services to overcome both environmental and societal challenges and to enhance human well-being in a context that accounts for both green economy opportunities and social justice outcomes. In theory, then, nature-based solutions have the potential to address distributional, procedural and recognition injustices and the patterns of winners and losers that often accompany such initiatives. Global policy debates on REDD+ have stressed the importance of social safeguards to ensure just process and equitable outcome although in practice the adoption of such safeguards and the equity of outcomes has been uneven.[53]

Indonesia is no exception to this global pattern. Distributional justice is core to transition policies in the forest and land-use sector in Indonesia where there is a long history of forestland appropriation and where land distribution "has become more unequal" over time.[54] Forest management policies and practices have also often denied or downplayed recognition of "local people, … their experiences, identities and values" and ignored traditional tenure and management systems.[55] Several studies have documented how REDD+ initiatives have generated ineffective benefit sharing agreements, reinforced forest tenure insecurity, and contributed to patterns of exclusion and displacement of indigenous people.[56] The ability of local communities to access REDD+ benefits is determined, among other things, by rights to own or to access forest lands and resources. A majority of forest land in Indonesia is government owned or managed. Calculations indicate that 31,957 villages in Indonesia are located in and around those state-managed forests, areas to which villagers have had limited access with consequences for the security of their livelihoods.[57] As a result, forest tenure conflicts are widespread as local and indigenous communities struggle to get their rights over forestlands and resources recognised by the state. In this regard, the clarification of forest tenure is key to successful nature based solutions such as REDD+ because it is both a necessary and prior justice condition for recognising the beneficiaries of projects as well as the kinds of benefit sharing (distributive) mechanisms that strengthen incentives for behavioural change.[58]

A similar complex of social justice concerns can be observed in the expansion of oil palm plantations, another major contributor to Indonesia's land-based carbon emissions and, therefore, an important component of the government's plans for transition to a low carbon economy. Indonesia is currently the world's biggest palm oil producer and exporter. As global market demand has grown rapidly, the government has set ambitious targets for the expansion of plantation and production. By 2017, according to official figures the country had 14 million hectares of land in oil palm plantation generating exports valued at 23 million USD.[59] Injustices and human rights violations in the oil palm sector in Indonesia have attracted national and international attention, as have concerns about environmental consequences and unsustainable production practices. Distributive injustices are reflected in the fact that only 35 per cent of oil palm land is owned by local smallholders with cultivation access rights on which more than 3 million families rely for their livelihoods.[60] Procedural injustice is experienced through the failure of many larger plantation companies to consult local peoples on development and land clearance plans, and recognition injustice occurs through unfair work and displacement practices that leave local and indigenous communities in situations of poverty. Human Rights Watch reports that poor oil palm governance combined with the failure of plantation companies to address human rights issues have adversely impacted indigenous communities' rights over forests and livelihoods. Indigenous and local communities have lost access to their ancestral lands through forest clearance, through exclusion from what were previously traditional lands, and in the absence of mechanisms for just and fair compensation.[61]

Since 2014 the Indonesian government has spearheaded a major push towards achieving distributional justice through improved access for local and indigenous communities to forestlands and resources. This has been carried out through a social forestry policy that allows communities to obtain access to forestlands and resources through schemes that variously designate forests as community forests, village forests, community plantation forests, and customary forests.[62] The policy aims at providing win-win-win justice-based solutions for ensuring equitable access, alleviating poverty, and strengthening forest-based climate mitigation. Under this initiative, the government committed to allocating 12.7 million hectares of forest areas to local and indigenous communities by 2019. This include a programme to encourage partnership between concession holders and smallholders to manage the forest areas although it did not transfer ownership. However, the government significantly

missed this target and implementation of this programme remains slow. By mid-September 2020, calculations on the Government's Ministry of Environment and Forestry website showed that only a total of around 4.66 million hectares had been allocated for social forestry initiatives. These calculations also reveal that allocation of customary forest for indigenous groups has been minimal: no more than 350,606 hectares has been distributed under this scheme.[63]

Sluggish progress in achieving this ambition can be attributed in part to the long and arduous procedures required for local communities to obtain social forestry permits and to the problems created by overlapping claims to forestlands.[64] Despite the seemingly inclusionary approaches of social forestry initiatives, recent studies show that various forms of injustice continue to limit opportunities of indigenous and local communities to access and benefit from forest resources.[65] De Royer *et al*. argue that schemes have "ignored local participation and aspirations" and have done little to "empower communities [or] address issues of social justice".[66] The supposed beneficiaries of these schemes are often provided with limited information on how the schemes work or on their rights and responsibilities under such schemes. Other studies offer evidence of elite capture and the legal and procedural and sometimes physical exclusion of certain groups such as women,[67] transmigrant communities or communities making claims to land that has been allocated as company concessions or defined as conservation areas.[68] Further, the allocation of forest land under social forestry initiatives is conditional upon communities' ability to submit forest management plans and to manage forest areas according to particular technical requirements. In the absence of the necessary technical, management skills and budgetary support, communities can often find these requirements difficult to meet. In turn, this can limit economic and livelihood aspirations, further marginalise local communities and undermine green economy initiatives.

Energy justice: vision vs. reality in Indonesia

As noted above, commentators predict that GHG emissions from the energy sector will exceed that of forestry and land use in the next decade,[69] with energy consumption set to grow by as much as 80 per cent by 2030 due to the rapid expansion of the economy and continued population growth.[70] Indonesia's long-term energy security remains uncertain in the face of diminishing coal reserves and declining oil production. At the same time, the country needs to find energy solutions that

will enable it to meet its NDC commitment under the Paris Agreement. Indonesia struggles to balance three key objectives that the World Energy Council refers to as the energy trilemma: ensuring energy access, energy security and environmental sustainability.[71] Nearly 25 million people in Indonesia lack access to reliable energy, a condition sometimes referred to as energy poverty. Energy poverty compounds other forms of discrimination and non-recognition including access to public services such as education and health.[72] While cheap coal could fulfil growing energy demands, it is not the most secure or sustainable approach to electricity generation. Nor does it meet the criteria for transitioning to a low carbon economy and, as Fünfgeld points out, coal energy is characterised by injustices across the sector.[73]

The Indonesian government has committed to pursue rapid transition to low carbon energy by developing a national energy policy (*Kebijakan Energy Nasional*/KEN) that, as noted above, includes a target for a renewable energy mix of 23 per cent by 2025. The government has argued for a distinctive vision of energy justice (*energi berkeadilan*) that addresses the distributive, procedural and recognition issues at the heart of the energy sector. This is broadly understood as the fair distribution of the benefits, risks and burdens of energy production and consumption across society. It aims to ensure a broader participation of key stakeholders in energy decisions. It also recognises the needs of those marginalised in the energy system. Renewable energy technologies have long been recognised as a promising avenue to address these energy goals. Transition policies on restructuring costly fossil fuel subsidies to encourage more efficient energy consumption and diversification into renewables include mitigation programmes aimed at supporting vulnerable communities and households. This has manifested in programmes and policies such as rural electrification projects and the "one price" fossil fuel policy (*BBM satu harga*) that requires that energy prices are equalised across the country. This "one price" policy is supposed to achieve greater equity and social justice outcomes in the energy sector by improving the affordability of fossil fuel in remote and underdeveloped areas.

In practice, the implementation of transitions to low carbon energy runs the risk of perpetuating existing inequalities in the traditional energy system. Setyowati argues that efforts to realise Indonesia's energy justice vision have been pursued through policies and programmes that focus narrowly on the distributive aspect of energy justice through emphasising energy accessibility and price affordability.[74] This focus

has led to policies that favour the "cheapest" energy regardless of its source and that result in a price cap on renewable energy sources. From a low carbon perspective, this creates an uneven playing field as renewable energy must compete with highly subsided fossil fuels. The winners are those who benefit from access to renewable energy and to employment and innovation opportunities related to energy transitions. Those who are disenfranchised from such efforts bear the continued burdens of energy poverty as well as lack of access to capacity development opportunities. Only large-scale projects are likely to be efficient in bringing renewable energy prices below fossil-fuel electricity costs and generating a return on investment.[75] This creates disincentives for the kind of small scale renewable energy projects that would be more effective in remote or rural areas by making them too costly and cutting off viable sources of finance. Studies have also calculated the complexity of fuel subsidy reorganisation means that "the government provides more subsidy to people that have energy access than to those without".[76] The ambition to make rapid improvements in energy access in rural areas has also shaped policies that prioritise the establishment of large scale and on-grid electricity expansion. While such an approach may assist Indonesia quickly to ramp up the electrification ratio, it might not be feasible for most energy poor areas in remote places where geographical challenges preclude a large scale, grid-based solution. The consequences in terms of recognition justice are considerable. This policy approach disproportionally affects indigenous people and minority groups, many of whom live in those remote areas and outlying islands.

Policies also pay insufficient attention to the procedural justice dimensions of a transition to low carbon energy, which is understood in its most conventional terms as ensuring stakeholders' participation in energy decision-making processes. There are many examples of procedural injustice in the renewable energy sector in Indonesia. One such example – the establishment of a controversial large-scale hydropower project in Batang Toru, North Sumatra Province – shows procedural injustice in practice through limited informational disclosure and limited space provided for the public and local communities to provide inputs into project planning. The project has received strong criticism and opposition due to the potential environmental risk of destroying Orang Utan habitat and social risk by significantly restricting local communities' access to watersheds for agricultural irrigation.[77] Despite strong opposition, the project construction continues. These kinds of procedural problems are compounded by the powerful

monopoly of the state-owned electricity company *Perusahaan Listrik Negara* that limits participation of other actors in electricity decision making processes. Moreover, the company's deep commitment to fossil fuel-based power generation and resistance to change has made weaning it away from its heavy dependence on coal toward renewable energy a challenge for low carbon transitions.

Conclusion

Indonesian governments have adopted a range of policies on managing transitions to a low carbon economy in two economic sectors that are central to Indonesian climate change mitigation efforts – forest and land-use, and energy. Although social justice outcomes have not often been the primary driver of these initiatives, in various ways the policy complex for low carbon development has recognised the challenges of poverty, unfair distribution of the burdens and risk associated with environmental degradation and high-carbon economies, structural exclusion from decision-making, and insufficient recognition of the diversity of lived and often marginalised experiences across the Indonesian archipelago. Despite this, the translation of decarbonisation policy rhetoric into practice on the ground through programmes to address (among other things) community and co-managed forests, concession moratoria, sustainable oil palm plantation and production, rural electrification, fossil fuel prices, and fuel subsidies has been uneven and has often reinforced or reproduced forms of injustice rather than remediating them.

Social justice as we have examined it here is not a singular category. A more nuanced analysis of transition policies and programmes exposes different elements of (in)justice – distributive, procedural and recognition – in the structuring of low carbon initiatives and in their outcomes. It confirms the complex interactions between those elements. It points to the challenges that public and private sectors face in realising a just transition to low carbon development to meet the country's climate change mitigation commitments and ensure that future development and economic growth is sustainably embedded in low carbon inputs. It confirms ways in which, even when they seek to do otherwise, policies for low carbon development and climate mitigation in forest, land-use and energy sectors can perpetuate injustices for those, for example, who are already dealing with energy poverty, or whose livelihoods and economic security are made more precarious through rising energy prices or

through constraints imposed on local or artisanal food production reliant on access to now closed forestlands.

Revealing policy weaknesses and gaps from a social justice perspective helps to identify opportunities for strengthening policy, programmes, and implementation strategies in the transition to a green, low carbon economy. These are not just technical questions about land tenure, climate finance, and capacity building, though each of those is important and each comes with social justice challenges. Those opportunities need to recognise and find better ways of including diverse local and marginal voices in decision-making, in the implementation of management strategies and in the development of compensation mechanisms in the face of environmental, economic and social risk. They need to rethink the kinds of environmentally and socially sustainable low carbon policies that will support rather than disadvantage those who live in remote areas and outlying islands as well as those who live in the more heavily populated and accessible parts of the country.

ORCID


Lorraine Elliott http://orcid.org/0000-0003-4940-1262

NOTES

1. Indonesian Ministry of Development Planning (BAPPENAS), *Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia*. Jakarta: BAPPENAS, 2019.
2. Steven Bernstein and Matthew Hoffmann, 'Decarbonisation: The Politics of Transformation', in Andrew Jordan, Dave Huitema, Harro van Asselt and Johanna Forster (Eds.), *Governing Climate Change: Polycentricity in Action?* Cambridge: Cambridge University Press, 2018, p. 248.
3. Republic of Indonesia, First Nationally Determined Contribution, November 2016, https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/First%20NDC%20Indonesia_submitted%20to%20UNFCCC%20Set_November%20%202016.pdf (accessed 24 July 2020). At time of writing Indonesia has not submitted a second NDC though reports suggest that the emissions reduction targets will not have changed; see A. Muh. Ibnu Aqil, 'Indonesia's Rehashed Climate Action Commitments "Not Ambitious Enough"'. *The Jakarta Post*, 16 April 2020, https://www.thejakartapost.com/news/2020/04/16/indonesias-rehashed-climate-action-commitments-not-ambitious-enough.html (accessed 24 July 2020). For a discussion on whether there is some inconsistency in the way that the Indonesian targets have been presented, see Luca Tacconi, 'Indonesia's

NDC Bodes Ill for the Paris Agreement'. *Nature Climate Change* Vol. 8. Issue 1: 842.

4. Joy E Hecht, *Indonesia: Costs of Climate Change 2050*. Washington, DC: US Agency for International Development, 2016, p. 2. This equates to approximately USD9 billion on mid-2020 exchange rates.
5. Pancasila is the philosophical basis of the modern Indonesian state, comprised of five principles that are inseparable and interrelated.
6. BAPPENAS, op. cit., p. 11.
7. Timothy G. Ehresman and Chukwumerije Okereke, 'Environmental Justice and Conceptualisations of the Green Economy'. *International Environmental Agreements* Vol. 15. Issue 1 (2015): 14.
8. BAPPENAS, op. cit, p. 15.
9. See Ehresman and Okereke, op. cit., for an overview of green economy approaches.
10. Ucok W.R. Siagian, Retno Gumilang Dewi, Rizaldi Boer, Iwan Hendrawan, Bintang Budi Yuwono and Gito Emannuel Ginting, *Pathways to Deep Decarbonisation in Indonesia*. Paris: SDSN/IDDRI [Sustainable Development Solutions Network/Institute for Sustainable Development and International Relations], 2015, p. 34.
11. Xander van Tilburg, Laura Würtenberger, Heleen de Coninck and Stefan Bakker, *Paving the Way for Low Carbon Development Strategies*. Petten, The Netherlands: Energy research Centre of the Netherlands, 2011.
12. Leah Worrell, Leo Roberts and Shelagh Whitley, *Enabling a Just Transition to a Low-Carbon Economy in the Energy Sector: Progress and Lessons in Emerging Markets*. London: Overseas Development Institute, 2018.
13. Ehresman and Okereke, op. cit., p. 17.
14. Georgia Piggot, Michael Boyland, Adrian Down and Andreea Raluca Torre, *Realizing a Just and Equitable Transition Away from Fossil Fuels*. Seattle: Stockholm Environment Institute, 2019, p. 1.
15. Steven Bernstein and Matthew Hoffmann, 'The Politics of Decarbonization and the Catalytic Impact of Subnational Climate Experiments'. *Policy Science* Vol. 51 (2018): 189–211: 189.
16. Benjamin K. Sovacool and Michael H. Dworkin, 'Energy Justice: Conceptual Insights and Practical Applications'. *Applied Energy* Vol. 142 (2015): 436.
17. In full, International Labour Organization [ILO], *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All*. Geneva: ILO, 2015.
18. Ibid., section II.4.
19. United Nations, The Future We Want: Outcome Document of the UN Conference on Sustainable Development, Rio de Janeiro, Brazil, 20–22 June 2012, https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf.
20. ILO, op. cit., II.8.
21. Jeffrey D. Sachs and Shiv Someshwar, 'Green Growth and Equity in the Context of Climate Change' in Venkatachalam Anbumozhi, Masahiro Kawai and Bindu N Lohani (Eds.), *Managing the Transition to a Low Carbon Economy: Perspectives, Policies and Practices from Asia*. Tokyo: Asian Development Bank Institute, 2015, p. 46.

22. Peter Newell and Dustin Mulvaney, 'The Political Economy of the "Just Transition"'. *The Geographical Journal* Vol. 179. Issue 2 (2013): 132.
23. See, for example, Piggot *et al*., op. cit.
24. Sovacool *et al*. include a fourth dimension – cosmopolitan (or global) justice – in their framework; see Benjamin K. Sovacool, Mari Martiskainen, Andrew Hook and Lucy Baker, 'Decarbonization and Its Discontents: A Critical Energy Justice Perspective on Four Low Carbon Transitions'. *Climatic Change* Vol. 155 (2019): 581–619. While we acknowledge the importance of this in a global context, a detailed analysis lies beyond the scope of this current article. For a discussion see Lorraine Elliott, 'Transnational Environmental Harm, Inequity and the Cosmopolitan Response', in Peter Dauvergne (Ed.), *International Handbook of Environmental Politics*. Cheltenham: Edward Elgar Publishing, 2nd edition, 2013.
25. Rini Astuti and Andrew McGregor, 'Responding to the Green Economy: How REDD+ and the One Map Initiative Are Transforming Forest Governance in Indonesia'. *Third World Quarterly* Vol. 36. Issue 12 (2015): 2288.
26. David Schlosberg, 'Reconceiving Environmental Justice: Global Movements and Political Theories'. *Environmental Politics* Vol. 13. Issue 3 (2004): 517.
27. Ibid., pp. 528–529.
28. SBY later held appointment as President and Chair of the Global Green Growth Institute from 2014 to 2016.
29. Susilo Bambang Yudhoyono, 'Economic Growth Can Complement Environmental Conservation', OECD Forum 2015, https://www.oecd.org/indonesia/economic-growth-can-complement-environmental-conservation.htm (accessed 23 June 2020).
30. See Emil Salim, 'Pro-Poor, Pro-Job, Pro-Poor, Pro-Environment' in Anbumozhi *et al*., op cit. p. 3.
31. Newell and Mulvaney, op. cit., p. 135.
32. Republic of Indonesia, First NDC, p. 2.
33. Ibid., 12.
34. Ministry of Finance [MoF], *Low Carbon Development Options for Indonesia: Phase 1 Status Report and Findings*. Jakarta: Ministry of Finance, Fiscal Policy Office, 2008, p. 55.
35. Ibid., p. 8.
36. Republic of Indonesia, First NDC, p. 5.
37. Republic of Indonesia, *Summary: Nationally Determined Contribution (NDC) and Its Progress of Implementation*, July 2017, p. 42; http://ditjenppi.menlhk.go.id/reddplus/images/adminppi/dokumen/summary_NDC_english_opt.pdf (accessed 24 July 2020).
38. Ibid., p. 10.
39. Ibid., p. 19.
40. Ibid., p. 28.
41. See for example, MoF op. cit., pp. 12–16; see also pp. 58–59.
42. Siagian *et al*., op. cit, p. 3.
43. Republic of Indonesia, *Summary*, p. 47.

44. Asian Development Bank-Asian Development Bank Institute, *Study on Climate Change and Green Asia: Policies and Practices for Low-Carbon Green Growth in Asia: Highlights*. Manila: ADB/ADBI, 2012, p. 11.
45. Cited in Astuti and McGregor, op. cit., p. 2273.
46. Presidential Regulation 22/2017 on *National Energy Plan* (Rencana Umum Energi Nasional), https://www.esdm.go.id/assets/media/content/content-rencana-umum-energi-nasional-ruen.pdf (accessed 3 September 2020).
47. There has also been a growing interest in urban forms of low carbon transformations in Indonesia. See, for example, Ari K M Tarigan and Saut Sagala, 'The Pursuit of Greenness: Explaining Low-Carbon Urban Transformations in Indonesia'. *International Planning Studies* Vol. 23. Issue 4 (2018): 408–426.
48. Daisy Dunne, *The Carbon Brief Profile: Indonesia*, https://www.carbonbrief.org/the-carbon-brief-profile-indonesia (accessed 31/08/2020). Indonesia ranks much lower on overall emissions per capita, though those emissions have continued to grow.
49. BAPPENAS, op. cit., pp. 71–85.
50. BAPPENAS, op. cit., p. 71.
51. Hans Nicholas Jong, 'Indonesia to Receive $56m from Norway for Reducing Deforestation'. *Mongabay*, 29 May 2020, https://news.mongabay.com/2020/05/indonesia-norway-redd-payment-deforestation-carbon-emission-climate-change/ (accessed 31 August 2020).
52. Cabinet Secretariat of the Republic of Indonesia, 'Green Climate Fund Approves Indonesia's REDD+ RBP Proposal of USD103.8 Million', 27 August 2020, https://setkab.go.id/en/green-climate-fund-approves-indonesias-redd-rbp-proposal-of-usd103-8-million/ (accessed 31 August 2020).
53. Margaret Skutch and Esther Turnhout, 'REDD+: If Communities are the Solution, What Is the Problem?'. *World Development* Vol. 130 (2020) [online article 104942]:1–9.
54. John F. McCarthy and Kathryn Robinson, 'Land, Economic Development, Social Justice and Environmental Management in Indonesia: The Search for People's Sovereignty', in John F. McCarthy and Kathryn Robinson (Eds.), *Land and Development in Indonesia: Searching for People's Sovereignty*. Singapore: ISEAS-Yusof Ishak Institute, 2016, p. 5.
55. S. de Royer, M. Van Noordwijk and J. M. Roshetko, 'Does Community Based Forest Management in Indonesia Devolve Social Justice or Social Costs'. *International Forestry Review* Vol. 20. Issue 2 (2018): 168.
56. Cecilia Luttrell, Lasse Loft, Maria Gebara, Demetrius Kweka, Maria Brockhaus, Arild Angelsen and William Sunderlin, 'Who Should Benefit from REDD+? Rationales and Realities'. *Ecology and Society* Vol. 18. Issue 4 (2013): 522; Isyaku Usman, Albert A. Arhin, and Adeniyi P. Asiyanbi, 'Framing Justice in REDD+ Governance: Centring Transparency, Equity and Legitimacy in Readiness Implementation in West Africa', *Environmental Conservation* Vol. 44 Issue 3 (2017): 212–220.
57. See Center for International Forestry Research [CIFOR] 'Forest Tenure Reform in Indonesia', https://www2.cifor.org/gcs-tenure/research/research-sites/indonesia/; accessed 11 September 2020.

58. William D. Sunderlin *et al*. 'Creating an Appropriate Tenure Foundation for REDD +: The Record to Date and Prospects for the Future'. *World Development* Vol. 106 (2018): 376–392.
59. Herry Purnomo, Beni Okarda, Ahman Dermawan, Qori Pebrial Ilham, Pablo Pacheco, Fitri Nurfatriani and Endang Suhendang, 'Reconciling Oil Palm Economic Development and Environmental Conservation in Indonesia: A Value Chain Dynamic Approach'. *Forest Policy and Economics* Vol. 111 (2020) [online article 102089]: 1–12.
60. Bhimanto Suwastoyo, 'Sawit Watch: Indonesia Has More Than 21 Million Hectares of Oil Palm Plantations', *The Palm Scribe*, 14 August 2018, https://thepalmscribe.id/sawit-watch-indonesia-has-more-than-21-million-hectares-of-oil-palm-plantations/ (accessed 7 September 2020).
61. Human Rights Watch, *When We Lost the Forest, We Lost Everything: Oil Palm Plantations and Rights Violations in Indonesia*. New York: Human Rights Watch, 2019.
62. Under social forestry policies, communities will be able to apply for permits to manage the "state forests" through several schemes: (a) community forestry (*hutan kemasyarakatan*); (b) village forests (*hutan desa*); (c) community plantation forests (*hutan tanaman rakyat*); (d) customary forests (*hutan adat*) and (e) forming partnership with private sectors (*kemitraan kehutanan*). Unlike other social forestry schemes, which only provide communities with rights to access forest resources, *adat* forest allows communities to have ownership rights over their customary forests.
63. MoEF. 2020. Perhutanan Sosial. http://pkps.menlhk.go.id/ (accessed 14 September 2020).
64. Ida Aju Pradnja Resosudarmo, Luca Tacconi, Sean Sloan, Faridh Almuhayat Uhib Hamdani, Subarudi, Iis Alviya and Muhammad Zahrul Muttaqin, 'Indonesia's Land Reform: Implications for Local Livelihoods and Climate Change'. *Forest Policy and Economics* Vol. 108 (2019) [online article 101903]: 1–14.
65. Rodd Myers, Dian Intarini, Martua T. Sirait and Ahmad Maryudi, 'Claiming the Forest: Inclusions and Exclusions under Indonesia's "New" Forest Policy on Customary Forest'. *Land Use Policy* Vol. 66 (2017): 205–213.
66. De Royer *et al*., op. cit., p. 167.
67. Abidah B. Setyowati, *Governing Forest Carbon: The Political Ecology of Reducing Emissions from Deforestation and Forest Degradation (REDD+) in Aceh, Indonesia*. PhD Thesis submitted to Rutgers University, 2014.
68. Myers *et al*., op. cit.
69. Arief Wijaya, Hanny Chrysolite, Mengpin Ge, Clorinda Kurnia Wibowo, Almo Pradana, Andhyta Firselly Utami and Kemen Austin, *How Can Indonesia Achieve Its Climate Change Mitigation Goal? An Analysis of Potential Emissions Reductions from Energy and Land-Use Policies*. Working Paper, Jakarta: World Resources Institute, 2017.
70. International Renewable Energy Agency (IRENA), *Renewable Energy Prospects: Indonesia, A Remap Analysis*. Abu Dhabi: IRENA, 2017, p. 1.
71. Abidah B. Setyowati, 'Mitigating Energy Poverty: Mobilising Private Climate Finance for Addressing the Energy Trilemma in Indonesia'. *Sustainability* Vol. 12, Issue 4 (2020): 1603.

72. Institute for Essential Services Reform [IESR] 2019. Membangun Indonesia; Akses Energi untuk Mendorong Kemajuan Desa, Press Release, 24 August 2019, http://iesr.or.id/wp-content/uploads/2019/08/Press-Release-EDM.pdf, (accessed 12 December 2019).
73. Anna Fünfgeld, *Fossil Fuels and the Question of Justice: Insights from Indonesian Energy Policy*. Analysen No. 44, Berlin, Rosa-Luxemburg-Stiftung, 2018.
74. Abidah B. Setyowati, 'Mitigating Inequality with Emissions? Climate Finance and Energy Justice in Indonesia'. *Energy Research and Social Science*. Forthcoming.
75. Ibid.
76. Maxensius Tri Sambodo and Rio Novandra, 'The State of Energy Policy in Indonesia and Its Impact on Welfare'. *Energy Policy* Vol. 132 (2019): 114.
77. There are also allegations that the project falsified documents related to environmental impact assessment; see Hans Nicholas Jong, 'Allegation of Forged Signature Cast Shadow over China-Backed Dam in Sumatra'. *Mongabay*, 25 February 2019, https://news.mongabay.com/2019/02/allegation-of-forged-signature-casts-shadow-over-china-backed-dam-in-sumatra/ (accessed 2 September 2020).